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ABSTRACT

A privately funded project that placed reading aides in the first three grades of the public schools was initiated in a rural county of Mississippi. The program provided a paraprofessional assistant reading instructor who worked under the direction of a classroom teacher to strengthen and enrich children's work in small groups or in an educational situation stressing instruction in basic skills. The aides, assigned to the instruction group on a full workday basis, met the qualifications of a high school diploma and demonstrated skills in reading, writing, speaking, and interpersonal communication. The results of an evaluation conducted after five years of the project revealed that in the first grades, where students had averaged at the twenty-third percentile nationally in reading before the program, students were now scoring above the national mean. In addition, the reading classrooms in the first and second grades were experiencing an 84% time-on-task as compared to the 70% rate reported as excellent in the literature. Process evaluation revealed that the teachers and aides who emphasized small group or individual activities had higher test scores. The evaluation also revealed higher student test scores in classes where teachers and aides took active roles in designing library reading experiences. The five-year project led to a state law that will place reading aides in all the public schools in Mississippi. (HOD)

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An Evaluation of Placing Teacher Aides in Elementary Reading Classrooms of Lee County, Mississippi

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In November of 1982, Governor William Winter called the Mississippi Legislature into session to enact educational legislation considered to be monumental in the history of the state. Included in this legislative package was a plan to introduce kindergarten programs in every school system in the state by 1986. In addition, a plan was enacted which provides assistant reading teachers for all classrooms of first, second, and third grade children. The reading assistants are to be installed in the first grade rooms in September of 1983. In following years, the teaching assistants (TA's) will be secured for the second and third grades.

Prior to this legislation Mississippi had no provision for public support of kindergartens. Even against overwhelming evidence that an effective kindergarten is a vital part of a strong educational system, the Mississippi Legislature had consistently refused to provide public funds for this purpose. Given these political problems, George McLean, a newspaper publisher in Tupelo, Mississippi, wanted to seek a politically-acceptable alternative which could improve public education without encountering the controversy associated with publicly-funded kindergartens.

Realizing that reading is the foundation for learning, McLean proposed that teacher aides be placed in the first grade reading classrooms to increase the students' time-on-task during reading instruction. He also realized that a demonstration of the concept would be necessary to convince public and legislative opinion. He further surmised that demonstrating the effectiveness of the staffing pattern in a school district with a tradition of excellence would be of little value in making an impact on public opinion.

In the fall of 1976, therefore, McLean made his proposal to the Lee County Schools in rural north Mississippi, a district of 5,000 students that had a record of poor achievement scores for children in reading. The first graders, for example, in Lee County in the previous year had scored an average of the 23rd percentile in reading achievement. To support the proposed reading aide program, McLean offered one and a half million dollars in personal funds over ten years to place reading aides in the first grade classrooms of Lee County. After two years, the program had gained such support that aides were placed in the second grade classrooms, again with the support of private money. Fifty percent of the funds were raised by parents in the schools through fund-raising activities.

Now that the program has been active for five years, a complete evaluation of the program was needed. The evaluation was to address two major questions: (1) How well did student achievement in reading in Lee County compare with that of student achievement in other "comparison" districts? and (2) How well do the classroom processes resulting from the teacher aide program relate to improvement in reading achievement?

Rationale for Program

The Teacher Aide Program (TAP) provides a paraprofessional assistant reading instructor who works under the direction of a classroom teacher to strengthen and enrich children's work in small groups or in an educational situation stressing instruction in basic skills. The proposed role of teacher aides was patterned similarly to that later described by Jarrard and Reed (1979) and Koenke (1979). The teacher aides assisted in remedial instruction, small group instruction, and individualized instruction. They read to children and listened to children read. In short, contrary to the

concept of traditional classroom aides, reading aides in the Lee County program serve as a teaching assistant in the classroom working under the professional teachers' supervision.

The aides are assigned to the instruction group on a full work day basis. A high school diploma and demonstrated skills in reading, writing, speaking, and interpersonal communications are prerequisites for aides to be employed. A full orientation program, inservice programs, and supervisory services are provided to the program by the sponsoring newspaper.

Goals of the Lee County Reading Aide Program were: (1) to assist teachers in providing more individualized and enrichment of instruction; (2) to increase children's experiences and practice time by providing additional instructional contact; (3) to provide teachers more time for instruction; and (4) to improve each student's time on task and quality of performance while the teacher is instructing in additional content in the basic learning disciplines.

Plan of Evaluation

An Overview

The purpose of this study was twofold: (1) to assess the effectiveness of the operational aspects of the program as related to student achievement in reading and (2) to compare reading achievement of students served by the program to that of students in a school district with a kindergarten program and to that of students in a school district with no kindergarten programs. Since control groups could not be utilized within the Lee County System, itself, school districts used for comparisons were those with similar socioeconomic conditions as those found in the districts served by the Reading Aide Program.

This evaluation study was conducted in two phases. In the first phase of the study, classroom observations were conducted, interviews were held with representative teachers and teacher aides participating in the program, and questionnaires were administered to both teachers and teacher aides to assess their perceptions of the work role of teacher aides in the classrooms. Data describing first and second grade students' performance in reading as measured by criterion-referenced tests published to accompany the Harcourt Brace Jovanovich reading program were also collected. The activities of teachers, teacher aides, and students in representative classes were correlated with student achievement in reading instruction. As observed by Wayne and Stack (1979), Anderson (1973), Rosenshine (1977) and McKinney, Mason, Perkerson, and Clifford (1975), student attention to the work task is directly correlated with reading achievement of primary age children.

In the second phase of the study, data describing students' achievement in reading as measured by the standardized California Achievement Test battery were collected. These data included end-of-year reading achievement test scores as well as pretest scores for the same students. For the first graders, pretest scores were collected at the beginning of the 1981-82 school year when these children entered school. Pretest measures for the second grade group consisted of achievement test scores on the same reading battery given to these children at the end of first grade. In addition to securing test data for students participating in the Reading Aide Program, data were also collected from children enrolled in another school district having a kindergarten program and having children coming from similar socioeconomic backgrounds as those children by the Reading Aide Program. Data were also collected from

children in two other school districts, both of which had no kindergarten programs and which served children with similar socioeconomic and educational backgrounds. One of these districts served children in an urban setting and the other included children from a rural background. These same test data were collected for third grade students in the Lee County program and in the comparison county having kindergartens.

Subjects

Data describing the Lee County Reading Aide Program were collected from 52 teachers, 49 teacher aides, and 792 students enrolled in the first and second grades of that school system. Comparison data were collected for nearly 1,200 students enrolled in the three school systems used as comparison groups. The students, except for those from one comparison school system, came from a rural environment and represented a relatively even mixture of black and white races.

Instruments

To study the instructional processes of the classrooms having teacher aides, two instruments were developed: (1) the Classroom Activity Survey for assessing classroom interactions and (2) the Students on Task Checklist.

The Classroom Activity Survey for studying interactions between students, teachers, and teacher aides was developed on a matrix-type form in which classroom activities observed were plotted against teacher and teacher aide activities with individuals, large groups, and small groups of students sampled in timed sequences. Activities included in the survey were reading silently, reading aloud, making assignments, instruction/explanation, discussion/reviewing assignments, practice drills, written assignments, taking test quizzes, non-reading instruction, social

interactions, student uninvolvement, student discipline and general classroom management.

This instrument was developed and employed by the classroom observers in a trial session. Then, a staff member of BERE visited the classroom and recorded the observations simultaneously with that of the designated observers to validate the observation procedures. In this validation, it was found that the instrument worked very well and that observers understood the phenomena being assessed. Small modifications were made in the meaning of certain activities, such as instruction/explanation and discussion/reviewing assignments. It was clarified that teachers and teacher aides could shift back and forth between several instructional activities within the individual time unit in which the assessment was being made. The observers and the specialist from BERE were satisfied that the assessments were being made accurately and that the Classroom Activity Survey was an adequate instrument for collecting data on classroom interactions. Between observer reliabilities for the instrument were determined to be .90.

The Students on Task Checklist was developed to determine the number of students on task in a classroom during reading instruction. This was done by marking the students who were on task in established time intervals. Each classroom observation was at least 30 minutes in length. Names of students were filled in boxes arranged in rows and columns to represent the location of students in the classroom. Modifications were made to fit the actual location of students' seats to the observational paradigm. Then, the observer started on the first row at the left side of the room and observed the student in the first seat on that row. If he/she were on task, then a check was placed in the box representing that

individual student. This process was continued in an orderly fashion until each student had been observed. Then, the observation was started over in the same manner indicated. Within a specified time interval (usually 10 minutes), each student in the classroom was observed at least four times. This process allowed at least 12 observations of each child during a 30-minute interval. Then, a percentage of time-on-task for each student was computed.

Time-on-task assessments were made for children in each classroom on three separate days, with each observation data separated by approximately two weeks. Reliability for time-on-task measurements for individual children in the classrooms between observations ranged from .61 to .93.

Test data for use in the second phase of the evaluation study were collected through use of the California Achievement Test battery and the criterion-referenced test designed by Harcourt Brace and Jovanovich to accompany their basal reading series which comprised the core curriculum materials employed by the Lee County School System in reading instruction. The CAT battery is used throughout Mississippi in its state accountability plan. The six subtests of the Harcourt Brace Jovanovich battery were found to have internal reliabilities ranging from .86 to .94.

Collection of Data

Test data were collected by the instructional staffs of the school systems in their regular achievement testing programs. Data relative to roles of teacher aides, classroom instructional interactions and time-on-task assessments were collected by staff members of the Northeast Mississippi Daily Journal in Tupelo under supervision of staff members from the Bureau of Educational Research and Evaluation.

Results and Discussion

Phase One

How effective are instructional activities in the Teacher Aide Program in keeping the children "on-task" during reading instruction? As can be seen on Table 1, the average percentage of time-on-task observed for the combined groups of first and second grade children in the Teacher Aide Program was 84.22. The first grade averaged 80% time-on-task, while the second grade averaged 89% time-on-task. These data are considered to reflect remarkable work habits for the students and managerial skills for the teacher-teacher aide teams. The amount of time-on-task discovered for children in other studies range from 50% to 76%, but 70% time-on-task for children in classrooms without teacher aides is considered to reflect instructional management expected for quality reading programs (Anderson, 1973). These data, then, indicate that teacher-teacher aide teams achieved some 14% more time-on-tasks among students than is expected in regular classrooms. Since "time-on-task" is the classroom variable which correlates best with student achievement, it was expected that the well-developed instructional management patterns displayed by the teacher-teacher aide teams would promote achievement in children. When time-on-task measures were correlated with overall achievement in reading as measured by the criterion-referenced tests, a correlation coefficient of .64 was observed, indicating, as expected, a strong relationship between student achievement and time-on-task.

As also noted on Table 1, an F ratio of 4.45 indicated that a significant difference existed in time-on-tasks observed between first and second grade children. That difference, favoring more time-on-task for second graders, was expected since these children are more mature and have

Table 1

Time-on-Task Observed for Students
in Teacher Aide Program

Grade	N	Percentage of Time-on-Task $\bar{X}$	SD	F
One	324	80.01	32.06	4.45*
Two	271	89.14	30.04	
Combined Grades	601	84.22	31.45	

*Significant at $\alpha = .05$.

longer attention spans. In other computations, however, significant differences were indicated in the percentage of time-on-task observed among first grade groups; i.e., children in some teacher-teacher aide teams consistently appeared less organized in their work and kept at their learning tasks less consistently. These data indicated that a need exists for some teacher-teacher aide teams to plan their instructional programs more carefully in order to keep the children more involved in their learning tasks.

What types of instructional patterns in reading emerge in classes held by teacher-teacher aide teams? Data in Table 2 show that teacher-teacher aide teams spend the majority of their instructional time in small group instruction. Nearly an equal amount of time is spent in individualized instruction and large group instruction. Approximately 85% of the teacher-teacher aide time is devoted to small group or individualized instruction. Teachers appear to spend somewhat more time in individualized instruction with the second grade (10.3%) than in the first grade (6.7%). Since the presence of aides in the classroom provides more "teacher" time, it was anticipated that more time for individualized instruction would be afforded, but that was not the case. No reliable data are available to determine how effective devoting 85% of the instructional time to small group and individualized instruction is in promoting achievement, but this record appears appropriate.

What relationship exists between observed teacher-teacher aide instructional patterns and the overall achievement of first and second grade children, as measured by criterion-referenced tests? Data illustrating the correlation between observed classroom instructional patterns as measured by the Classroom Activity Survey and achievement data

Table 2

Percentage of Time Spent in Different Size Group Activities in Reading Instruction

Activities	Percentage of Observed Time First Grade	Second Grade
Large group instruction (15+ students)	14.9	8.1
Small group instruction (2-14 students)	78.3	81.4
Individualized instruction (1 student)	6.7	10.3
Noninstruction-socialization (0 students)	0.1	0.2

assessed by the criterion-referenced tests are given in Tables 3 and 4. In the first grade, as can be seen by Table 3, activities associated with small group instruction and individualized instruction accounted for 54.76% of the variance in achievement. Large group instruction accounted for an additional 2.6% of the variance. As noted on Table 4, the time spent in small group instruction and individualized instruction accounted for 34.81% of the variance in achievement among the second graders, with an additional 2.4% of the variance associated with large group instruction.

Again, these data indicate that small group and individualized instructional activities tend to promote achievement more than the other types of classroom activities observed. Since the Teacher Aide Program appears to allow more time for the small group and individualized efforts, it is evident why more achievement is promoted in classrooms having teacher aides than in those where they are not available.

Are there differences in reading achievement for first and second grade children who participated in the Reading Aide Program as compared to their counterparts who (1) attended kindergarten programs and were not in a teacher aide program or (2) did not attend kindergartens and did not participate in the Reading Aide Program? A nonstandard analysis of covariance model employing pretest scores as the covariate and posttest scores as the criterion measure was employed to compare magnitude and slope differences in the reading achievement of the groups. Results of this analysis are given in Table 5. At the first grade level significant differences were found among the groups for both magnitude and slopes of regression curves in total reading achievement. At the second grade level differences in both of these measures were also indicated in the area of reading vocabulary. No differences were noted in slope in either reading

Table 3

Correlation of Observed Teacher-Teacher Aide Activities with Reading Achievement on Criterion-Referenced Tests (Grade 1)

Activities	R	R^2	Simple r	F
Small group instruction	.65	.4224	.65	18.86**
Individualized instruction	.72	.5214	.25	11.39**
Large group instruction	.74	.5476	.18	3.41
Noninstruction-socialization	.75	.5622	-.06	1.21

**Significant at α = .01.

Table 4

Correlation of Observed Teacher-Teacher Aide Activities with Reading Achievement on Criterion-Referenced Tests (Grade 2)

Activities	R	R^2	Simple r	F
Small group instruction	.47	.2209	.47	13.47**
Individualized instruction	.59	.3481	.39	11.81**
Large group instruction	.61	.3721	.22	4.41*
Noninstruction-socialization	.61	.3722	.09	1.89

*Significant at α = .05.

**Significant at α = .01.

Table 5

F Ratios for Slope
and Magnitude Among Comparison
Groups In Reading Achievement

	F Ratio for Magnitude	F Ratio for Slope
First Grade		
Total Reading	15.98*	15.78*
Second Grade		
Vocabulary	17.72*	48.33*
Comprehension	15.11*	9.73*
Third Grade		
Vocabulary	21.72*	2.71
Comprehension	1.10	.98

vocabulary or comprehension, nor in slope for reading vocabulary achievement.

Table 6 shows means and percentiles for students in each of the programs studied for first graders relative to total reading achievement. It is noted that children in the Reading Aide Program group from Lee County made a gain of 109 score points during the first grade, while children in District A having a kindergarten made a gain of 98 score points. Children in District B, a rural district with no kindergartens nor reading aide programs made a gain of 68 score points. Those children in the more urban District C, also having no kindergartens and no teacher aides, made a gain of 80 score points. At the end of first grade, the children in the Reading Aide Program ranked at the 53rd percentile in total achievement, according to national norms, while those in District A with their kindergarten background ranked at the 67th percentile. These data indicate that the children in the Lee County group made more gains during the first grade but still ranked a little lower than the kindergarten group did at the same time. This relationship can better be seen in Figure 1. As noted in this graph, those children who scored lowest on the pretest in the Lee County group made higher gains in reading achievement than did their counterparts in the kindergarten programs in District A and in comparable programs in Districts B and C. Achievement for children who scored higher on the pretest in the Lee County Groups leveled off. These data appear to indicate that the Teacher Aide Program is working exceptionally well for children who ranked in the lower achieving group initially, but not so well for the higher achieving group, as compared to the other groups studied at first grade.

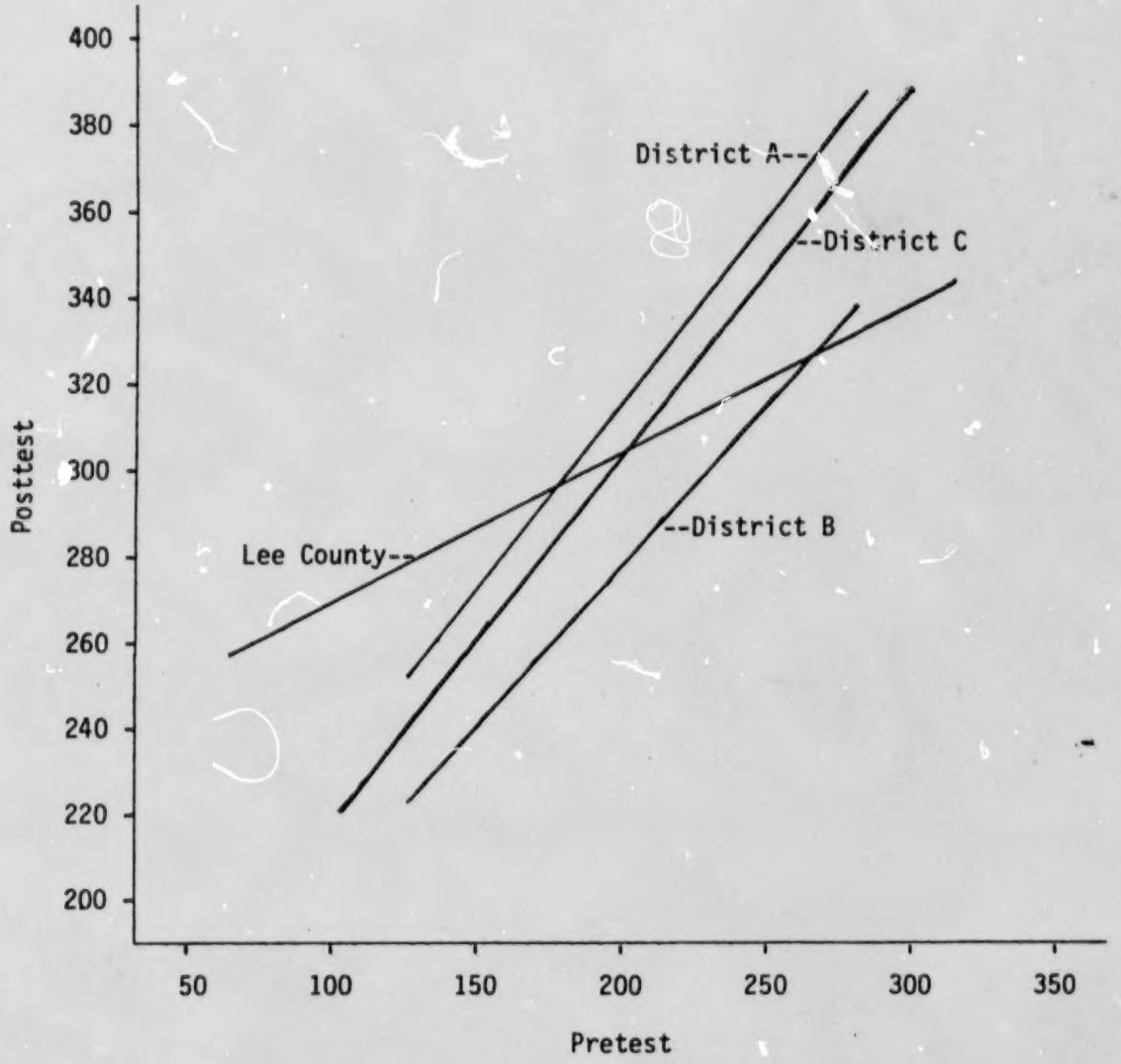
Table 6

First Grade Total Reading Scores
by School

School District	Pre Total Reading	Post Total Reading	Gain Pre to Post
Lee County Teacher Aides	200 (6%)	309 (53%)	109
District A Kindergartens	229 (23%)	327 (67%)	98
District B No teacher aides rural	232 (29%)	300 (44%)	68
District C No teacher aides urban	246 (40%)	326 (67%)	80

Figure 1

Achievement Patterns for First Grade
Reading by School



On Table 7 are given data describing second graders' achievement in reading comprehension and reading vocabulary. As can be seen by these data, the Lee County group made more gains in achievement in both reading vocabulary and comprehension than did either of the three comparison groups. At the end of second grade, the children participating in the Teacher Aide Program for two years ranked at the 50th percentile on national norms in vocabulary and at the 58th percentile in reading comprehension. Both the school district whose children had attended kindergarten (District A) and the rural school district without kindergartens (District B) reported achievement in vocabulary and comprehension below the national average. Those children, however, from a more urban, higher income area reported reading achievement in vocabulary at the 64th percentile level and achievement in comprehension at the 69th percentile level, achievement levels significantly higher than that reported in Lee County.

The graphs in Figures 2 and 3 are illustrations of the achievement patterns for the four districts. At second grade the far more superior pattern of achievement for children at the average and below average levels is indicated. Again, however, achievement for the upper group levels is not so impressive. This trend is indicated by the less steep slope of the regression line plotting the relationship between pretest and posttest scores. In District A (kindergarten group), for example, a straight, rather steep regression line plots the relationship between pretest and posttest scores, indicating that those who knew less on the pretest also made correspondingly lower on the posttest and also that those who made higher on the pretest continued to make higher on the posttest. This pattern is the expected one. The Lee County Group, however, indicated a

Table 7

Second Grade Vocabulary Scores
by School

School District	Pre Voc.	Post Voc.	Gain	Pre Compr.	Post Compr.	Gain
Lee County Teacher aide program	323 (27%)	379 (50%)	56	333 (30%)	398 (58%)	65
District A Kindergartens	340 (41%)	366 (43%)	26	351 (43%)	330 (45%)	29
District B No Kindergarten	333 (34%)	370 (46%)	37	343 (36%)	383 (48%)	40
District C No Kindergarten	355 (57%)	395 (64%)	40	372 (62%)	408 (69%)	36

Figure 2

Achievement Patterns for Second Grade
Vocabulary by School

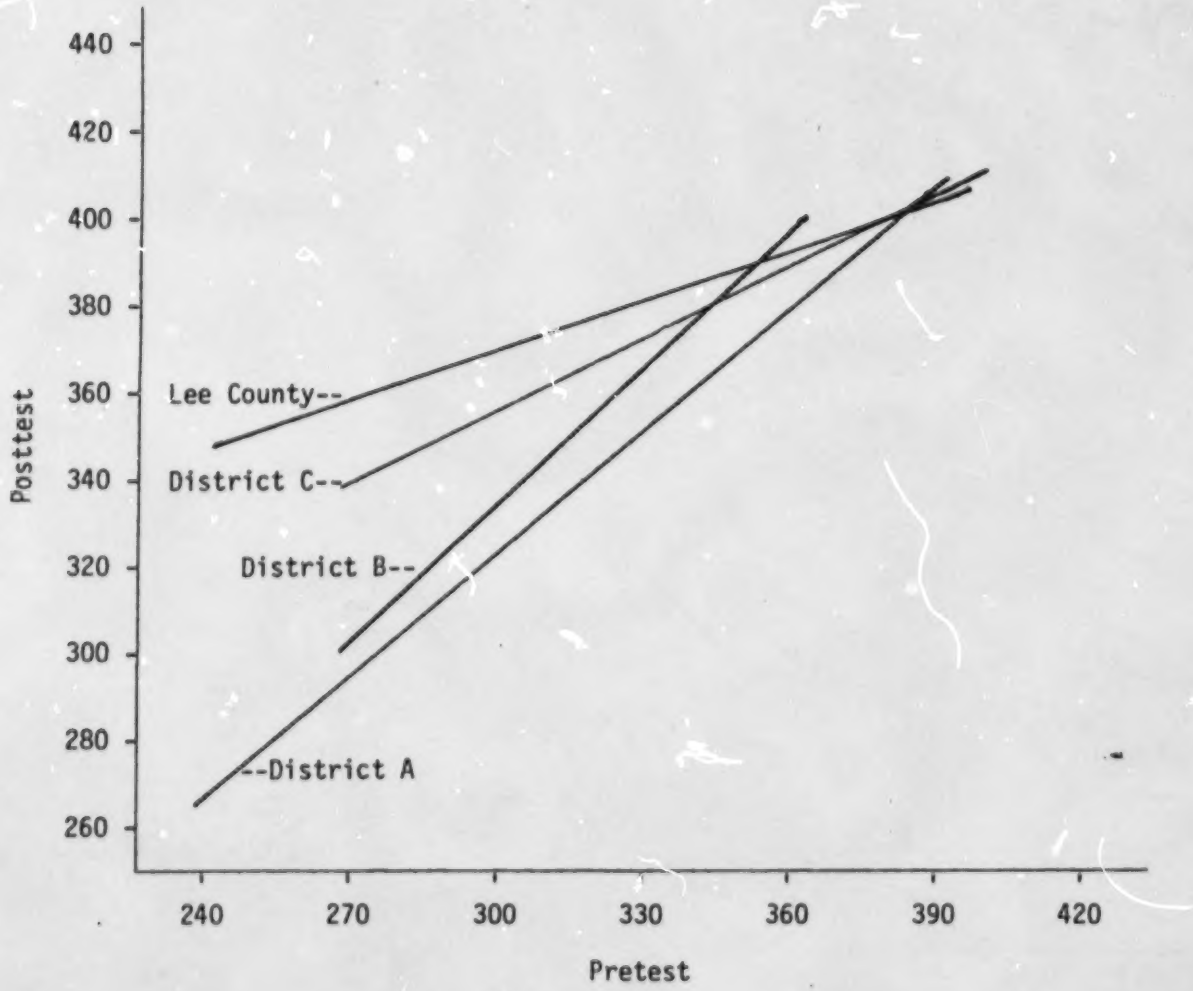
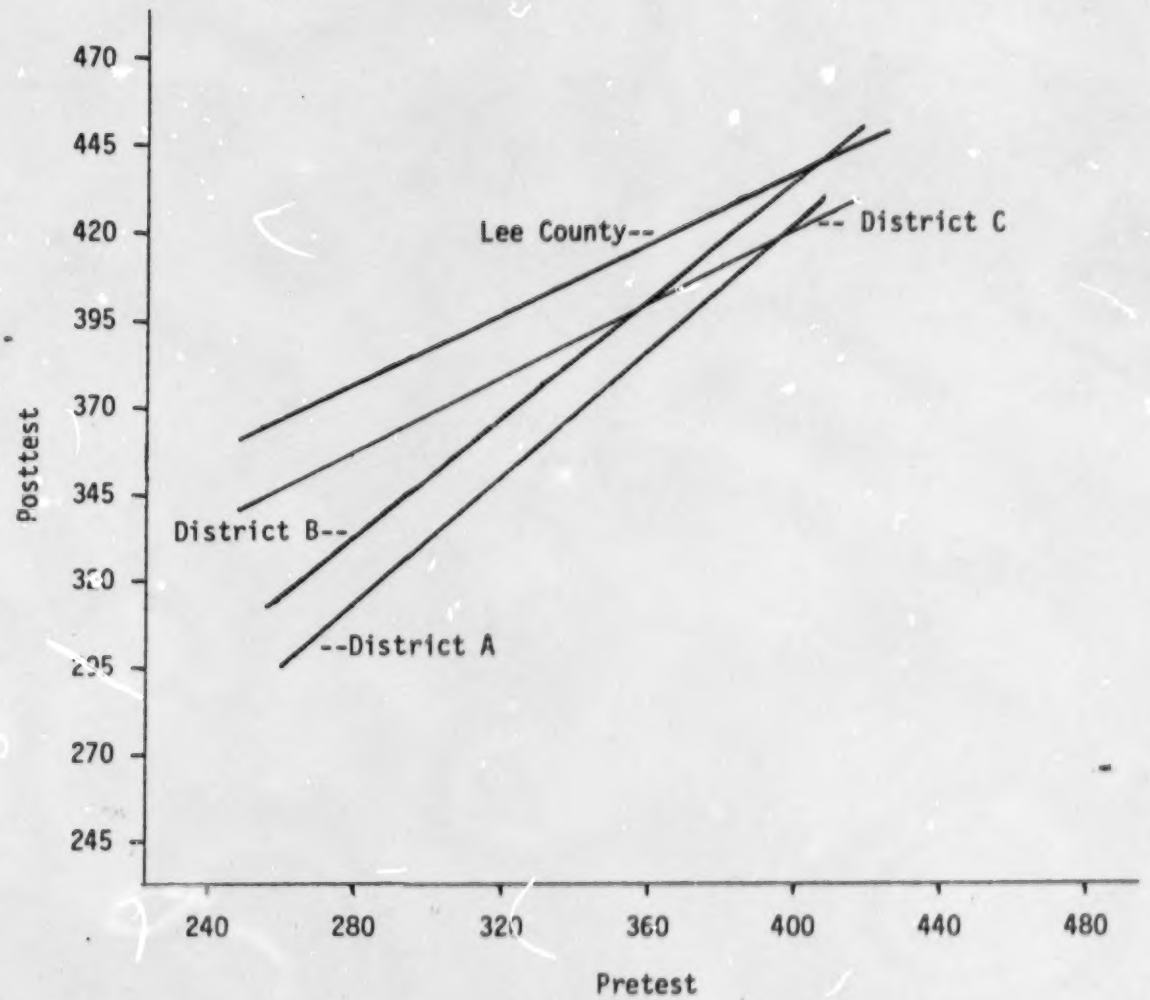


Figure 3

Achievement Patterns for Second Grade
Comprehension by School



markedly high gain in achievement for those children who scored lower on the pretest and less comparative gain for those who scored higher on the pretest. A range of only some 40 points in achievement was indicated for the Lee County Group for children of all ability levels. This small range indicates that the Lee County Group, regardless of pretest achievement, was fairly homogeneous in reading achievement at the end of the program. If the higher achieving students had gained in achievement similar to the same rate observed for the lower achiever, the Lee County Group would have currently been achieving higher than the 80th percentile. Nevertheless, the students with no kindergarten background who achieved highest did not do so well as did the higher achieving Lee County students.

Are there significant differences in reading achievement for third grade children who participated in the Teacher Aide Program for their first two years of school and their counterparts who attended kindergarten?

In comparing the achievement of third graders who were participants in the Teacher Aide Program for two years with that of third graders who attended a kindergarten program, it was discovered that no significant difference existed in achievement in reading comprehension. The group with kindergarten experience, however, scored significantly higher on reading vocabulary than did the Lee County Group. These data are given in Table 8. A graphic representation of the third grade comparisons are given in Figure 4.

Since in the area of reading vocabulary the Lee County Group made a gain of only 18 points as compared to 41 points for the kindergarten-experienced group, a need for teacher aide support through the third grade is indicated, if the history of better achievement for that group is to be sustained.

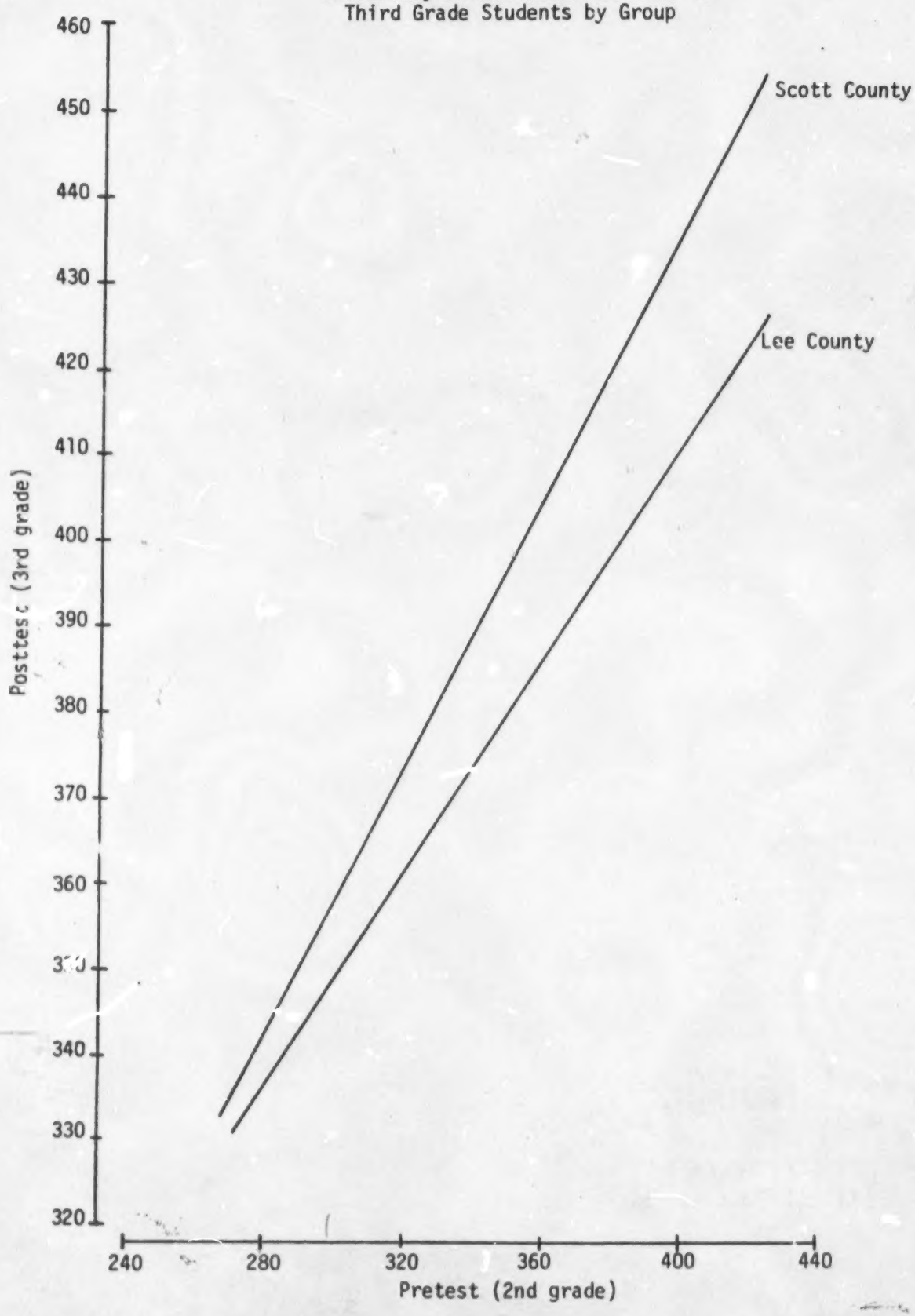
Table 8

Third Grade Reading Scores
by School Districts

School District	Pre Voc.	Post Voc.	Gain	Pre Compr.	Post Compr.	Gain
Lee County Teacher aide program	382 (56%)	400 (47%)	18	395 (57%)	418 (47%)	23
District A Kindergartens	372 (49%)	413 (52%)	41	387 (52%)	415 (47%)	28

Figure 4

Vocabulary Achievement Patterns for
Third Grade Students by Group



Conclusions

After reviewing data in this second year of the evaluation of the Teacher Aide Program, the following conclusions are made:

1. The Teacher Aide Program is benefiting reading achievement among students in the first and second grades in school systems participating in the study. Looking at the nonstandard analysis of covariance plots for reading achievement in Lee County, it is obvious that the Reading Aide Program has led to outstanding gains for the lowest ability students. When compared with the three comparison school districts at the first and second grade levels, achievement in Lee County for the weakest students was found to be superior. However, for students who were initially strong reading achievers, less gain in reading achievement was indicated, as compared to school districts in other regions. Evidently the instructional program needs to be reviewed to insure that desired gains are obtained for the higher achieving students in reading, as have been accomplished for the lower achieving students.

In studying reading achievement of students in the Teacher Aide Project, as compared to the achievement of their counterparts, in a school district having kindergartens, it is evident that by the end of second grade the achievement of children in the Teacher Aide Program exceeds that of the children with kindergarten experience. The Lee County students scored seven percentile points higher in reading vocabulary and 13 percentile points higher in reading comprehension. This gain on achievement by the Teacher Aide Program group, however, appears to have been cancelled out by the time children finish third grade. At the end of third grade, the kindergarten group and the Teacher Aide group both scored at the 47th percentile in reading comprehension and the kindergarten group

outscored the Lee County group five percentile points in reading vocabulary. These data indicate that consideration should be given to extending the Teacher Aide Program to the third grade, if the initial gains in achievement are to be sustained.

3. The process evaluation indicated that the organizational aspects of the Teacher Aide Program appear to be working very well. The Reading Aide Program features favorable time-on-task commitments among students. Overall, children in the Teacher Aide Program spend approximately 84% of their time in active instructional tasks, whereas the highest time-on-task for children in classrooms reported by other studies is approximately 70%. A 50% time-on-task situation would be what would generally be expected for first and second grade children. In addition, 85% of teacher-teacher aide time is devoted to small group or individualized instruction. These variables, along with time-on-task for students, were found to significantly relate to student achievement. It was also discovered that in classrooms where teacher aides were associated with utilizing library materials and supplementary reading experiences, students scored significantly higher on reading achievement as measured by criterion-referenced tests. These data show that consideration might be given to the development of more library experiences or supplementary reading experiences, if reading achievement is to be maximized. Otherwise, the Teacher Aide Program is exhibiting instructional activities and classroom commitment among teachers, teacher aides, and students that is highly commendable.

4. The general achievement trends in reading among students in the Teacher Aide Program continues to be very commendable. First grade students who started their school work in the lower tenth percentile, as determined by academic predictors, currently are scoring above the 50th percentile, above average according to national norms.

Recommendations

On the basis of these data, the following recommendations are made:

1. It is recommended that the Teacher Aide Program be continued and that, if possible, consideration be given to providing teacher aide support for children in the third grade.

2. It is recommended that a careful study be made of the current curriculum in the reading program to insure that opportunities are provided which challenge the upper achieving level of students to make achievement gains commensurate with their abilities. The program obviously has had near phenomenal success with average and below average achievers, but students who have the potential for reading well when entering the program do not appear to be progressing as well as might be expected.

3. It is recommended that instructional programs continue to use small group and individualized instructional systems. If possible, instructional activities should utilize more library resources and one-on-one instructional patterns between student and teacher or teacher aide.

4. It is finally recommended that careful study be made of patterns of instruction in individual classrooms to achieve more consistency in both product and process evaluation.

References

Anderson, L. W. Time and school learning. Doctoral dissertation, University of Chicago, 1973.

Hiatt, Diana B. Time allocation in the classroom. Is instruction being shortchanged? Phi Delta Kappan, 1979, 61(4), 289-290.

Jarrard, R. D. & Reed, May. Suggestions for school improvement aides. Journal of Teacher Education, 1979, 30(5), 19-20.

Koenke, Karl. Toward effective use of teacher aides. Reading Teacher, 1979, 32(8), 996-999.

McKinney, J. D., Mason, J., Perkerson, K., & Clifford, M. Relationship between classroom behavior and achievement. Journal of Educational Psychology, 1975, 67(3), 198-203.

Moore, Betty J. But what do you do with an aide...a teacher...a parent? San Marcos, Texas: Southwest Texas State University, 1978. (CS 004506)

Rosenshine, B. V. Primary grade instruction and student achievement gain. Paper presented at the annual meeting of the American Educational Research Association, New York City, April 1977.

Wayne, M. D. & Stack, G. B. Time-on-task and reading performance in under-achieving children. Journal of Reading Behavior, 1979, 11(2), 119-127.

Abstract
An Evaluation of Placing Teacher Aides in
Elementary Reading Classrooms of Lee County, Mississippi

This evaluation reports the results of a privately-funded project to place reading aides in the first three grades of the Lee County (Mississippi) Public Schools. The five-year project led to a state law which will place reading aides in all the public schools in Mississippi.

The results of the evaluation revealed that in the first grades in the Lee County Schools, where students had averaged at the 23rd percentile nationally in reading before the program, students were now scoring above the national mean five years into the program. In addition, the process evaluation indicated that, on the average, the reading classrooms in the first and second grades were experiencing an 84% "time-on-task" rate as compared to a 70% rate reported as excellent in the literature. The process evaluation revealed that the teachers and the aides who emphasized small group or individual activities had higher test scores. Actually, an average of 85% of all teacher and aide activities was spent in individual and small group activities. The process evaluation also revealed that in classes where teachers and aides took active roles in designing library reading experiences, higher student test scores were present.